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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of
Patrick H. Wnek

Serial No. 09/764,718

Filed 18 January 2001

For: Container With Improved Stacking/Denesting Capability

Appeal No.: _____
Group Art Unit: 3727
Examiner S. Castellano

APPLICANT'S BRIEF ON APPEAL

(1) Real Party in Interest

The real party in interest in this application is Graphic Packaging Corporation, by virtue of an assignment recorded on March 19, 2001, at Reel 011653, Frame 0348.

(2) Related Appeals and Interferences

There are no related appeals or interferences.

(3) Status of Claims

The claims pending in this application are claims 1-12, and 16-21, all of which have been finally rejected. Copies of claims 1-12, and 16-21 are appended hereto.

(4) Status of Amendments after Final

There have been no amendments filed after the Final rejection mailed October 17, 2002.

(5) Summary of the Invention

The invention is a compression formed paperboard container of the type that can be reliably stacked in nested relationship with other like containers and removed one by one from the stack in a reliable and dependable manner. Pressed paperboard containers of this type have various uses and by way of example, are used as the bottom supporting wall of an expandable bag of microwaveable popcorn. In such uses, the container might be formed in laminate format having a layer of susceptor material thereon which is known to convert microwave energy into heat.

A container 20 formed in accordance with the present invention has a downwardly convergent, generally frustoconical side wall 22 that is continuous along its circular lower edge with a flat-bottom wall 24 and along a circular upper edge with an outwardly directed flat peripheral rim 26.

The container is provided with a ring-like bulge 28 that projects inwardly from the inner surface 30 of the side wall 22 immediately adjacent to the peripheral rim 26 with the ring-like bulge being provided in the form of a plurality of vertically extending and uniformly circumferentially spaced ribs 32. As best seen in Figs. 2 and 6, the side wall 22 also has a ring-like bulge 34 projecting outwardly from the outer surface 36 of the side wall with the outwardly directed ring-like bulge also being formed from a plurality of vertically extending and uniformly circumferentially spaced ribs 38. The inner and outer surfaces of the side wall define a side wall thickness therebetween with the side wall thickness of the bulges at the ribs being greater than between adjacent ribs and at other locations on the side wall.

As best seen in Figs. 2 and 6, the outer surface 36 of the side wall 22 also has a lower ring-like bulge 40 in the form of a plurality of vertically oriented and circumferentially spaced ribs 42, which are spaced downwardly from both the inwardly directed ring-like bulge 28 on the

inner surface of the side wall and the upper ring-like bulge 34 on the outer surface of the side wall.

As is probably best appreciated by reference to Fig. 6, the ring of ribs 38 projecting outwardly from the outer surface 36 of the side wall 22 is horizontally aligned with a lower portion of the inwardly directed ribs 32 on the inner surface 30 of the side wall.

The containers are preferably formed in a two-step process. In the first step of the process, a flat radially scored disk 39 is formed from a flat circular disk 41 shown in dashed lines in Fig. 7. The disk 41 is positioned in a scoring apparatus 43 having an upper scoring plate 45 and a lower back-up plate 47. The scoring of the circular disk forms radial depressions 53 (Fig. 12) in the top surface of the disk and corresponding radial protrusions 55 (Fig. 12) in the bottom surface. In the second step of the process for forming the containers, the radially scored disk 39 from which the container is to be made is formed into the desired configuration of the container with a punch 43 and die 44 as shown in Figs. 3, 17 and 18 with the punch, i.e., the male component, having an upper main body portion 46 defining a peripheral flange 48 with a central generally frustoconical downward projection 50 and with the die, i.e., the female portion, having a main body 52 defining a peripheral flange 54 and a centrally located generally frustoconically shaped depression 56 that is somewhat complementary with the downward projection 50 of the punch.

The frustoconical side wall 62 of the downward projection of the punch is substantially smooth but has an inwardly directed ring-like relief groove 64 (Fig. 17) adjacent to the juncture between the frustoconical side wall 62 of the punch and its peripheral flange 48. The relief groove 64 is a uniformly continuous circular relief cut of arcuate cross section into the punch 43. It creates the inwardly directed ribs 32 out of the scored areas of the container. In other words,

as the container is being formed from a pre-scored blank disk 39 between the punch and die, the radial depressions 53 in the paperboard define weakened areas that expand into the circular relief cut 64 as the punch is advanced into the die thereby forming the ribs 32. The ribs are spaced just as the radial depressions 53 are spaced due to the scoring process.

The substantially frustoconically shaped side wall 68 of the depression 56 in the die 44 is also a substantially smooth surface that is provided with two ring-like relief grooves 70 and 72 (Fig. 18), which are uniformly continuous circular reliefs of arcuate cross section cut into die 44. They create the outwardly directed ribs 38 and 42 along the radial protrusion 55 of the scored areas of the container just as the ribs 32 are formed from the radial depression 53 as described above.

It is important that the grooves 64 and 70 be located in the same upper region of the side wall which creates the double bulge required to create a desired nesting step in the otherwise smooth side wall of the container.

As can be seen in Figs. 1 and 4, the rim of a container also includes score lines 57 but during the pressing process there are no relief grooves in the rim areas of the punch and die to which the radial depressions 53 on the top surface of the material and radial protrusions 55 on the bottom surface can expand. Accordingly, the top surface of the material having the radial depressions becomes pleated at 59 (Fig. 10) as it is compressed between the flat punch and die, and the bottom surface actually buckles inwardly at 61. Accordingly, the top and bottom surfaces of a rim of a completed container are somewhat flat even though the top surface is defined by a plurality of pleated areas and the bottom surface is defined by a number of buckled areas.

With the containers formed as described above, they can be uniformly stacked in nested relationship as shown best in Figs. 5 and 6. As probably best seen in Fig. 6, an outwardly directed rib 38 on the upper ring-like bulge of one container is positioned to rest upon and engage an inwardly directed rib 32 of the next adjacent lower container. The inwardly directed rib 32 of a lower container also fits into a notch 78 defined beneath a rib 38 of the next adjacent upper container so that the containers are encouraged to stack uniformly and with a uniform spacing between the peripheral rims 26 of adjacent containers. The containers will also not tend to easily wedge together due to the step that is created in the otherwise smooth side wall. The step is necessary to prevent containers from wedging when initially stacked and greatly reduces the wedging of stacks of containers when they are being transported. The spacing between rims of adjacent containers can be controlled by the size and positioning of the inwardly directed ring-like bulge 28, and the upper outwardly directed ring-like bulge 34.

While the lower ring-like bulge 40 is not always necessary, it has been found that providing such a bulge further encourages adjacent containers to stack uniformly. As will be appreciated best by reference to Fig. 6, if one container were to become slightly inclined relative to the next adjacent lower container, the lower outwardly directed ring-like bulge 40 would engage the inner surface 30 of the next adjacent lower container to prevent further tilting of the container in that direction.

It will also be appreciated by reference to Fig. 6 that the side walls 22 of the containers are only engaged along small ring-like areas of engagement so there is very little frictional resistance to removal of one container from the next adjacent container in a stack. Further, the rings of bulges actually consist of a plurality of individual vertically extending ribs that are

spaced providing an air vent or an air gap between ribs that prevents a partial vacuum from being formed between adjacent containers.

Further, while those skilled in the art are typically capable of determining processing conditions for properly forming such pressed paperboard containers, when forming a pressed container from a laminate (including a susceptor) as described above, it is desirable that the punch temperature be in the range of 110° to 115° centigrade, the die temperature in the range of 165° to 175° centigrade, a forming die force in the range of 15,000 to 16,000 pounds and the closed dwell time of the punch in the die approximately 1.2 seconds. Further, it is preferable that a smooth side of the paperboard should be on the outside bottom of the container and the moisture content of the paperboard be in the range of 4.5% to 6.5% regardless of whether the paperboard is the sole material from which the container is punched or whether it is part of a laminate.

(6) Issues

1. Whether claim 17, 20 and 21 are indefinite under 35 USC 112 for failing to provide a proper antecedent basis for the phrase, "said paperboard material" in line 4. Claims 20 and 21 are dependent upon claim 17.

2. Whether claims 1-6, 9-11 and 17 are anticipated under 35 USC 102(b) by the patent to Keiding.

3. Whether claims 1-4, 9, 10 and 17-21 are clearly anticipated under 35 USC 102(b) by the patent to Morita, et al.

4. Whether claims 1-4, 9, 10 and 17-21 are clearly anticipated under 35 USC 102(b) by the patent to Hirano.

5. Whether claims 1-10, 12, 16 and 17 are unpatentable under 35 USC 103(a) over Newman, et al. in view of Keiding.

6. Whether claims 1-8, 12, 16 and 17 are unpatentable under 35 USC 103(a) over Petitto in view of Keiding.

7. Whether claims 1-12 and 17 are unpatentable under 35 USC 103(a) over Keiding in view of Sorensen.

8. Whether claim 16 is unpatentable under 35 USC 103(a) over Keiding.

9. Whether claims 1-6, 9-11 and 17-21 are unpatentable under 35 USC 103(a) over Keiding in view of Morita, et al., Hirano, Lavigne or Stocking.

(7) Grouping of Claims

As will become more apparent in the Argument set forth in Section (8) hereafter, the claims in each of the groups identified in Sec. 6 (2-9) do not stand or fall together.

(8) Arguments

(A) Discussion of the references cited

a. Keiding Patent No. 1,986,824.

The Keiding patent discloses a receptacle that is molded from pulp with the pulp preferably being wood pulp or paper pulp. When forming the container, a reticulated mold which is internally subjected to vacuum, is inserted in a pulp bath, and the flow of liquid through the mold causes pulp to be deposited thereon to build up a blank on the surface of the mold. This blank is dried sufficiently to be self-supporting. While it still retains a large portion of its free water, the blank is subjected to compression which is internally directed upon a supporting mandrel and is so conducted that the blank is not permitted to expand under pressure. The dies used in conducting the pressure operation are preferably smooth surfaced to eliminate all marks

on the mold except where grooves or ribs are desired for ornament or for the retention of a cover for the receptacle. The dies may be grooved or ribbed to produce a complementary configuration in the pulp without any underlay such as is usually required to give an embossed effect in any molded article. Part of the material displaced toward the margin of the container may be used in building up such ribs. A container accordingly has a wall of varying thickness with ribs and channels being formed to accommodate a removal lid. It is important to note in the forming of the container in accordance with the invention that the compression step is applied after the container has been formed into its general final configuration on a reticulated mold and the compression occurs while the pulp still has a high-water content.

b. Morita, et al. U.S. Patent No. 5,721,022.

The Morita patent is directed to a disposable pan made from a paper sheet material by pressed means and while the pan has a lower bowl-like concave part and a flange part extending outwardly from the upper peripheral edge of the concave part, and the pan is made from paper sheet material, it is not made from paperboard nor are there any peripheral bulges either inwardly or outwardly formed on the pan.

c. Hirano U.S. Patent No. 6,270,003.

The Hirano patent is directed to a cake container made from a thin sheet of paper as opposed to paperboard. The paper is of uniform thickness throughout and folded into a desired configuration.

d. Newman, et al. U.S. Patent No. 4,832,202

The Newman, et al. patent is directed to a container formed from a thermo plastic material into a drinking cup. The walls of the cup are of uniform thickness but a plurality of spaced axially extending ribs 10 are formed therein. The ribs are of the same thickness as the

remainder of the walls. A shoulder 11 is formed in an upper portion of the side wall so that when the cups are nested to form a stack, the ribs 10 formed on one cup rest on the shoulder 11 formed in the cup there below.

e. Petitto U.S. Patent No. 3,836,042

The patent to Petitto is directed to a nestible container preferably made of a thin, seamless plastic sheet by a conventional thermo forming process but it is mentioned the container could be of coated or impregnated paper. It is noted when the container is made of plastic, it can be shaped by conventional techniques such as compression, injection molding or thermo forming. The wall of the container is of uniform thickness throughout but does have stacking lugs formed thereon which allow free air communication between nested containers to prevent the development of suction between stacked containers.

f. Sorensen U.S. Patent No. 5,176,284

The Sorensen patent is directed to a plastic container having a thin, flexible side wall and includes a parametric ledge 18 that extends generally in a lateral direction, an upper parametric wall section 20 extending between an outer edge of the ledge 18 and the rim 16 of the container, a tapered lower parametric wall section 24 extending toward the base 12 from an inner edge 26 of the ledge and two parametric series of longitudinal ribs 28, 30 closely spaced about all of the ledge 18 and extending between the ledge 18 and the respective upper and lower wall sections 20, 24 for reinforcing the container. There is no disclosure of a system for improving denesting of nested containers.

g. Lavigne U.S. Patent No. 2,831,623

The Lavigne patent is concerned with a prefabricated milk container made from a fibrous sheet material which is creased, plated and compressed under pressure to provide a finished milk container simulating the standard milk bottle. The container is made from a one piece blank of sheet material that is of uniform thickness and there are no bulges or thickened areas to facilitate nesting and denesting.

h. Stocking U.S. Patent No. 2,387, 778

The Stocking patent concerns the method of molding containers from a plastic sheet wherein plastic sheet is defined as being either a sheet of thermal plastic material with or without filler or may be a sheet of fibrous material, such as cloth or paper impregnated with plastic. The sheet of plastic material is cut and formed so as to have a circular central base with radiating elements that have slits therebetween so when the elements are raised into a circular configuration around the circular base, the circular base forms the bottom of a glass type container and the radiating elements in combination form an integrated side wall for the glass-type container. The elements overlap slightly so that the side wall becomes increasingly thick toward the open top of the glass and relatively thin near the circular base. There are no means for facilitating nesting and denesting.

(B) General Comments

In the early prosecution of the present RCE application and the parent to the present application, the examiner appeared to have dismissed the fact that the present invention related to paperboard containers. The examiner felt the use of paperboard in a container was not of patentable significance and stated that paperboard is a well-known material for containers and its use would have been an obvious design choice in view of the disclosures in the Petitto and Compton patents (both of which related to plastic or plasticized containers). Applicant did not

agree. In fact, the processes of forming paperboard containers and plastic containers are quite different. Even in forming plastic containers, the processes can be quite different depending on whether one is press forming the plastic or injection molding. For example, when injection molding plastics, cavities in the mold of various thickness can be filled with a flowable plastic material, but such cavities are not filled when compression forming sheets of plastic. Even the process described in the patents of Compton and Petitto are different. As disclosed in Compton in column 3, lines 14-15, it is primarily concerned with injection molding of plastic and in such processes, cavities of different thickness can be filled with the flowable plastic so the container walls can be of varying thickness as shown. In Petitto, however, the walls of the container are of uniform thickness even though lugs are formed in said walls with the lug wall thickness also being uniform and the same as the remainder of the side wall. The Petitto patent in column 5, lines 53-57 mentions the product can be injection molded or compression formed which is possible due to the uniform thickness of the container walls. If the container walls were of varying thickness, it is not believed compression forming would be an option. In other words, if one were working with plastics, one can achieve different results by injection molding than one can by compression molding as plastic cannot normally be compression molded in a manner so that the wall thickness varies.

The plastic sheet from which materials are compression molded is merely deformed, but its wall thickness remains uniform as is evident in the container disclosed in the patent to Petitto. As mentioned above, even though lugs and the like are formed during the compression molding process, the lugs as well as the remainder of the side walls of the containers have a uniform wall thickness between inner and outer surfaces thereof. This is typical of conventional compression molding processes. In the Compton patent, however, the containers are injection molded so that

the wall thickness can vary as it does at locations where the projections 23 are provided. As will be appreciated, even when working strictly with plastics, the methods of forming are critical to the final product and some products cannot be made by the same process as other products.

The present invention is even more distinct in that the material from which the containers are made is at least partially paperboard and the containers are press formed from a substantially flat blank in a manner so as to create side walls that vary in thickness and, in fact, create bulges in the form of side-by-side projections which are thicker than remaining locations in the side walls. Accordingly, the container of the present invention is press formed from a paperboard material and has side walls of varying thickness at predetermined locations to improve the nesting and denesting capabilities of the containers. A plastic material, by contrast, and to applicant's knowledge, could not be press formed in a manner to provide side walls with varying thickness and particularly with bulges of the type designed in the container of the present invention. In fact, part of the success in obtaining the relatively thick regions in the side wall results from the fact that the flat blank paperboard material has been pre-scored so that pleat-like areas are defined on the side walls which can bulge into recessed zones in the punch and die used to press form the containers. None of this is even relevant in the forming of plastic containers, and accordingly, it is felt the art of forming plastic containers is quite distinct from the art of press forming paperboard containers.

In a more recent office communication, the Examiner recovered the patent to Keiding which is concerned with a receptacle made from molded pulp as opposed to plastic. The receptacle made in accordance with the Keiding patent, however, is quite distinct from the present invention in that the cup is initially formed in a pulp bath on a reticulated mold that is internally subjected to vacuum. The flow of liquids through the mold causes pulp to be

deposited thereon to build up a pulp material on the mold in the general form of the receptacle being made. While the pulp material still maintains a large portion of its free water the initially formed material is subjected to compression which is internally directed upon a supporting mandrel and is so conducted that the pulp product is not permitted to expand under pressure. It is of interest to note that the dies may be grooved or ribbed to produce a complementary configuration in the pulp without any underlay such as is usually required to give an embossed effect in any molded article. Part of the wet pulpy material can be displaced toward the margin of the cup and may be used in building up such ribs. The wall thickness in the receptacle does in fact vary where the pulp slurry is forced under compression into grooved or ribbed portions of the die.

The Keiding process for making a cup-like receptacle is quite distinct from the present invention in that the receptacle in Keating is formed from a pulp slurry whereas in the present invention, the cup is compression molded from a flat blank of paperboard material. As will be appreciated, when compression forming a paperboard blank from a two dimensional to a three dimensional object, at certain locations there is excessive material and accordingly, the blank is pre-scored so that pleats may be formed where there is excessive material. Further, the punch and die are provided with depressions into which excess material can be compressed during the compression molding process thereby forming bulges in the form of spaced ribs located at every location where a score line is provided. Accordingly, in accordance with the present invention, the excessive material that results from the compression molding of a flat blank of material into a three-dimensional object is utilized to establish bulges in the form of spaced projections which when properly positioned, encourage desired stacking of the containers and ready separation of nested containers in a stack.

Of the claims remaining in the application, namely claims 1-12 and 16-21, claims 1 and 17 are independent with the remaining claims being dependent directly or indirectly upon one of the independent claims. Each of the independent claims is directed to a nestable container having a continuous side wall with inner and outer surfaces defining a side wall thickness therebetween. A bottom wall is formed along the lower edge of the side wall and wherein the side wall is downwardly convergent. The side wall has a bulge made of said paperboard material projecting inwardly from the inner surface of the side wall and at least one bulge projecting outwardly from the outer surface of the side wall. Claim 1 further states that the thickness of the side wall is greater at at least some locations along the bulges than at other locations and wherein at least one outwardly projecting bulge is adapted to cooperate with the inwardly directed bulge of an underlying nested container to encourage aligned stacking of the containers.

Claim 17 further states that the bottom edges of the at least one outwardly projecting bulge and the bottom edges of the at least one inwardly projecting bulge are located on the side wall at substantially the same vertical distance from the bottom wall. Both independent claims 1 and 17 state that the, "container is press-formed from a single substantially flat blank, the blank being substantially comprised of paperboard material."

There is clearly no prior art reference or combination of references that teach or suggest a nestable container as described in either claims of 1 and 17. As will be appreciated, a number of the prior art references teach plastic containers which may have walls of varying thickness (Dart, Compton and Stocking) while others have walls of uniform thickness (Newman, et al., and Petitto). Probably the most relevant reference is the patent to Keiding in that it discloses a paper-based product having walls of varying thickness even though the varying thickness in the walls is not provided for nesting purposes. The distinction between the Keiding product and that of the

present invention, however, resides in the fact that the paper-based product of Keiding is formed from a molded pulp and after the initial receptacle has been formed, it is further compressed so that the original product is not allowed to stand but can flow into grooved or ribbed portions of the dies to form a buildup of the material that resembles embossing.

In contrast to Keiding and the other prior art references, the nestable container of the present invention is formed from a substantially flat blank of paperboard material and has the other features identified in independent claims 1 and 17.

In a telephone interview with the examiner following the final rejection, the examiner took the position that press forming the flat blank was a method limitation in a product claim and, accordingly, did not lend patentability to the product as long as the structure in the product is met by the prior art. Applicant does not agree. While it is well known that:

> "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a difference process." *In re Thorpe,* 777 F.2d 694, 698, 227 U.S.P.Q. 964, 966 (Fed.Cir. 1985).

It is also well settled that certain phraseology which may have the appearance of method steps are capable of construction as structural, rather than process, limitations. *In re Garnero,* 162 U.S.P.Q. (BNA) 221, 223 (CCPA 1969) where the court held that:

> ". . .the recitation of the particles as 'interbonded one to another by interfusion between the surfaces of the perlite particles' is as capable of being construed as a structural limitation as 'intermixed,' 'ground in place,' 'press fitted' (emphasis added) 'etched,' and 'welded,' all of which at one time or another have been separately held capable of construction as structural, rather than process, limitations.

In the present case, the limitation in the claim which the examiner has stated to be a method limitation, namely "press-formed" is felt to be one of those recitations contemplated by *In re Garnero*, and is very close to the phrase, "press fitted" which is specifically mentioned in

the *In re Garnero* opinion. Accordingly, it is felt that the container of the present invention which is press formed from a single, substantially flat blank of paperboard material is not felt to have been disclosed or suggested in the prior art and is patentably distinct therefrom.

Applicants have devised a paperboard product that is dependably nestable and reliably separable from a nested stack in a press forming operation on paperboard material wherein the flat blank of material from which the container is press formed is certainly not a slurry but rather as disclosed in the specification has a moisture content of only 4.5% to 6.5%.

For the aforenoted reasons, it is felt the present invention is quite distinct from the prior art.

(C) Specific Comments as to Each Issue of Sec. 6

1. Claims 17, 20 and 21 were rejected under §112 as being indefinite. Claims 20 and 21 are dependent upon claim 17. Claim 17 references "said paperboard material" without proper antecedent basis for the term "said." Applicant is agreeable to deleting the word "said" from that phrase to remove the antecedent basis problem.

2. Claims 1-6, 9-11 and 17 were rejected under §102(b) as being anticipated by the patent to Keiding. As mentioned above, the Keiding reference does not form a nestable container from a single substantially flat blank of paperboard material but rather the receptacle in Keiding is made from a pulp slurry and finally pressed formed once it has been preformed into the configuration of the desired receptacle. Each of the claims in this group of claims is limited to press forming the container of the present invention from substantially flat blanks of paperboard material which is felt to be patentably distinct from the teaching in Keiding or any of the other prior art references. In addition, claim 4 defines the bulges as including spaced ribs which further patentably distinguishes the subject matter of this claim as the ribs define

advantages in paperboard containers as set forth in the specification which are not shown in the prior art. The same is true of claims 9-11 which include a second outwardly projecting bulge not suggested in prior art paperboard containers.

3. Claims 1-4, 9, 10 and 17-21 were rejected under 35 U.S.C. 102(b) as being clearly anticipated by Morita, et al. As discussed above, the Morita, et al. patent discloses a disposable pan that is made from paper but it is certainly not press formed from a single blank sheet of paperboard and does not have the bulges or the uniform side wall thickness defined in each of the claims in this group of claims. In addition, claims 4, 9 and 10 are felt to be further patentably distinguishable for the reasons set forth in Sec. 8(C)2. Accordingly, the rejection of the claims in the application based on the patent to Morita, et al. is not felt to be justified.

4. Claims 1-4, 9, 20 and 17-21 were rejected under 35 U.S.C. 102(b) as being clearly anticipated by the patent to Hirano. The Hirano patent as mentioned, simply discloses a cake container made from a sheet of paper having uniform thickness wherein the paper has been folded into a desired configuration. It is not press formed as provided for in the present claims nor does it have the bulges defined for desired nesting and denesting of a plurality of containers in a stack. In addition, claims 4 and 9 are felt to be further patentably distinguishable for the reasons set forth in Sec. 8(C)2. Accordingly, the rejection of this group of claims based on the Hirano patent is not felt to have been justified.

5. Claims 1-10, 12, 16 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Newman, et al. in view of Keiding. As mentioned previously, the Newman patent is concerned with containers made from thermoplastic material and to combine the teachings of a thermoplastic molding process with that of a paper pulp forming process as disclosed in Keiding would not be a fair combination of prior art references. In other words, one

would not look to the plastic molding art to overcome deficiencies in the art of molding paper pulp to render obvious a container press formed from a flat blank sheet of paperboard material. The forming of articles from plastics and paper-based materials are simply non-relevant arts and the teachings between the two arts are not compatible. In addition, claims 4, 9 and 10 are felt to be further patentably distinguishable for the reasons set forth in Sec. 8(C)2. Accordingly, this group of claims is not felt to be rendered obvious by a combination of the teachings in the patents to Newman et al. and Keiding.

6. Claims 1-8, 12, 16 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Petitto in view of Keiding. Again, the Petitto patent is directed to a nestable container that is made of plastic or a coated or impregnated paper, but the container has walls of uniform thickness. While lugs are defined on the walls to facilitate nesting and denesting, the wall thickness does not change which is consistent with compression moldings of plastic. It is stated in column 5, lines 53-58 that the container is preferably fabricated from a plastic such as moldable polystyrene, polyethylene, or polypropylene. and shaped by conventional techniques such as compression, injection molding or thermoforming. As mentioned previously in this brief, plastic containers having walls that do not vary in thickness can be formed by any of the aforenoted processes identified in the Petitto patent. Importantly, however, is the fact that the art of forming receptacles from paper pulp is not relevant to the art of forming containers from plastics and therefore, the combination of teaching in Petitto and Keiding cannot be logically made. In other words, if one were wanting to make a paper-based container, he would not look to the plastic molding art for suggestions on how to do so as the processes are totally distinct. In addition, claims 4 and 12 are felt to be further patentably distinguishable for the reasons set forth in Sec. 8(C)2, and claim 16 further defines the material from which the container is made as a

laminate with a microwave susceptor layer which is not suggested in the prior art. Accordingly, it is not felt this group of claims is rendered obvious by the teachings in the patents to Petitto and Keiding.

7. Claims 1-12 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Keiding in view of Sorensen. As mentioned previously, the Sorensen patent is merely directed to a thin walled plastic container having reinforced ribbing and there would be no logical reason for combining the teachings in the formation of such a plastic container with the teachings of forming a paper based receptacle from a pulp slurry. For reasons set forth above, it is not felt that one designing a receptacle from a paper pulp would look to the art of plastic molding for a teaching on how to press form a paperboard container from a blank sheet of material. In addition, claims 4 and 9-12 are felt to be further patentably distinct for the reasons set forth in Sec. 8(C)2. Accordingly, the claims of this group are not felt to be rendered obvious by the teachings in the patents to Sorensen and Keiding.

8. Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Keiding. For reasons described above, the Keiding reference does not show or suggest a container made by press forming a blank sheet of paperboard material and particularly where the material is a laminate including a layer of microwave susceptor material. Accordingly, this rejection is felt to be in error.

9. Claims 1-6, 9-11 and 17-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Keiding in view of Morita, Hirano, Lavigne or Stocking. Comments regarding the combination of teaching in Keiding, Morita and Hirano were made above and it is not felt the teachings in the Lavigne or Stocking patents strengthens the examiners position. The Lavigne patent discloses a prefabricated milk container formed from a pre-cut blank of material that

defines flaps that are folded upwardly into the general configuration of the milk container. It does not appear any compression occurs until the sides have been folded with the compression only being applied to the annular lip at the top of the container. Accordingly, the container is not made by press forming a blank but rather by pre-cutting a blank and folding the resultant flaps into the desired configuration before compression forming a lip around the top of the container. Accordingly, neither the Lavigne nor the Keiding references disclose or suggest a container formed by press forming a blank sheet of paperboard material and, therefore, the rejection of this group of claims based on Keiding and Lavigne is not felt to be justified.

With regard to the Stocking patent, it discloses a molded container made from a flexible plastic material, even though it does state the material could be cloth or paper impregnated with plastic. The plastic component appears to be important, however, in that it is stated in the second column on page 2 commencing at line 65 that the material is heated sufficiently to cause a flow of the resinous material. Again, as mentioned previously with regard to other plastic related references, the art of molding plastics is quite different from that of molding paper-based products and it is felt an attempted combination of a plastic molding reference with a paper-based molding reference is inappropriate in combining non-relevant art. Accordingly, this group of claims is not felt to be rendered obvious by a combination of Keiding and Stocking.

In addition, claims 4 and 9-11 are felt to be patentably distinct for the reasons set forth in Sec. 8(C)2.

(D) Conclusion

It is submitted the invention as defined in claims 1-12 and 16-21 is not anticipated or rendered obvious by the prior art patents. Reversal of the Examiner's final rejection of each of the claims is, therefore, solicited.

Signed at Denver, Colorado, this 23rd day of June 2003.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of Patrick H. Wnek	)	
Serial No: 09/764,718	)	
Filed 18 January 2001	)	Appeal No.: _____ Group Art Unit: 3727 Examiner S. Castellano
For: Container With Improved Stacking/Denesting Capability	)	

(9) APPENDIX

CLAIMS ON APPEAL

1. A nestable container having a continuous sidewall with inner and outer surfaces defining a sidewall thickness therebetween and upper and lower edges, and a bottom wall formed along said lower edge of the sidewall, said sidewall being downwardly convergent and having a bulge made of said paperboard material projecting inwardly from said inner surface of the sidewall, and at least one bulge projecting outwardly from the outer surface of said sidewall, said thickness of the sidewall being greater at at least some locations along said bulges than at other locations on said sidewall, said at least one outwardly projecting bulge adapted to cooperate with the inwardly directed bulge of an underlying nested container to encourage aligned stacking of the containers wherein said container is press-formed from a single substantially flat blank, the blank being substantially comprised of a paperboard material.

2. The container of claim 1 wherein said inwardly projecting bulge is ring-like.

3. The container of claim 2 wherein said at least one outwardly directed bulge is ring-like.

4. The container of claim 3 wherein said inwardly and said at least one outwardly directed bulges include a plurality of peripherally spaced ribs which define locations in said sidewall which have a greater sidewall thickness than other locations on said sidewall.

5. The container of claim 3 wherein said container further includes a peripheral rim projecting outwardly from said upper edge of said sidewall.

6. The container of claim 5 wherein said inwardly projecting bulge is adjacent to said upper edge of said sidewall.

7. The container of claim 6 wherein said at least one outwardly projecting bulge is horizontally aligned with said inwardly projecting bulge.

8. The container of claim 7 wherein said peripheral rim is substantially parallel with said bottom wall of the container.

9. The container of claim 3 further including a second outwardly projecting bulge on said sidewall positioned beneath said at least one outwardly projecting bulge.

10. The container of claim 9 wherein said second outwardly projecting bulge is ring-like.

11. The container of claim 10 wherein said second outwardly projecting bulge includes a plurality of peripherally spaced ribs which define locations in said sidewall which have a greater sidewall thickness than other locations on said sidewall.

12. The container of claim 7 further including a second outwardly projecting bulge on said sidewall positioned beneath said at least one outwardly projecting bulge.

16. The container of claim 1 wherein said container is made of a material that is a laminate that further includes a microwave susceptor layer.

17. A nestable container comprising a continuous sidewall with inner and outer surfaces defining a upper and lower edge of the sidewall, and a bottom wall formed along said lower edge of the sidewall, said sidewall being downwardly convergent and having a bulge made of said paperboard material projecting inwardly from said inner surface of the sidewall, and at least one bulge projecting outwardly from the outer surface of said sidewall, said at least one outwardly projecting bulge and said at least one inwardly directed bulge each having bottom edges, the bottom edges of the at least one outwardly projecting bulge and the bottom edges of the at least one inwardly projecting bulge being located on the side wall at substantially the same vertical distance from the bottom wall, wherein said container is press-formed from a single substantially flat blank, the blank being substantially comprised of a paperboard material.

18. The container of claim 1, wherein said continuous sidewall comprises a plurality of pleats created by folds in the blank.

19. The container of claim 1, wherein the blank includes a plurality of score-lines whereat the blank folds to form the sidewall, the sidewall having a plurality of pleats formed therein.

20. The container of claim 17, wherein said continuous sidewall comprises a plurality of pleats created by folds in the blank.

21. The container of claim 17, wherein the blank includes a plurality of score-lines whereat the blank folds to form the sidewall, the sidewall having a plurality of pleats formed therein.